

Listing of Claims:

1. (Currently Amended) A monitor photodetector-equipped optical modulator ~~characterized by~~ comprising:

an optical modulator having a substrate, an optical waveguide, a center electrode, and at least one ground electrode,
5 wherein the substrate ~~having~~ has an electro-optic effect, the optical waveguide ~~which~~ guides a light beam ~~being~~ and is formed on one surface side of the substrate, and the center electrode and the at least one ground electrode ~~being~~ have a voltage applied therebetween ~~voltage~~ for modulating the light beam guided
10 by the optical waveguide, wherein the optical waveguide ~~including~~ includes an input optical waveguide, two branching optical waveguides, two interaction optical waveguides, a multiplexing optical waveguide, and an output optical waveguide, wherein the light beam ~~being~~ is incident on the optical waveguide through the
15 input optical waveguide, the two branching optical waveguides ~~guiding~~ guide the light beam incident on the input optical waveguide while branching the light beam into two light beams, the two interaction optical waveguides ~~modulating~~ modulate each phase of the two light beams by applying the voltage between the
20 center electrode and the at least one ground electrode, the multiplexing optical waveguide ~~multiplexing~~ multiplexes the two light beams which propagate through the two interaction optical

waveguides, and the output optical waveguide ~~being~~ is connected to the multiplexing optical waveguide through a multiplexing point of the multiplexing optical waveguide which multiplexes the two light beams, and wherein a high-order mode light beam which is generated by multiplexing the phase-modulated two light beams in the multiplexing optical waveguide ~~being~~ is radiated from the multiplexing point to ~~an inside of~~ inside the substrate as two radiant light beams while the high-order mode light beam ~~hardly propagates~~ does not substantially propagate through the output optical waveguide in the optical modulator; and

a monitor photodetector which is disposed outside the substrate except on said one surface side of the substrate, and which detects at least one of the two radiant light beams radiated from the multiplexing point ~~to the inside of~~ inside the substrate of the optical modulator,

~~wherein the optical modulator characterized in that the output optical waveguide~~ of the optical modulator is formed while being deformed in order to secure a space for mounting the monitor photodetector such that at least one of optical axes of the radiant light beams in a substrate facet located on the output optical waveguide ~~of the substrate~~ and an edge portion of the output optical waveguide are separated from each other by a predetermined distance.

2. (Currently Amended) A monitor photodetector-equipped optical modulator according to claim 1, ~~characterized in that~~
wherein the output optical waveguide is formed while a position of the multiplexing point in a direction orthogonal to a
5 longitudinal direction of the substrate differs from a position of the edge portion of the output optical waveguide.

3. (Currently Amended) A monitor photodetector-equipped optical modulator according to claim 1, ~~characterized in that~~
wherein the output optical waveguide is a Mach-Zehnder type optical waveguide.

4. (Currently Amended) A monitor photodetector-equipped optical modulator according to claim 1, ~~characterized in that~~
wherein the monitor photodetector is provided near the substrate facet.

5. (Currently Amended) A monitor photodetector-equipped optical modulator according to claim 1, ~~characterized in that~~
wherein the monitor photodetector is provided through a room.

6. (Currently Amended) A monitor photodetector-equipped optical modulator according to claim 1, ~~characterized by~~ further comprising a mirror which is fixed near the substrate facet,

wherein, after at least one of the two radiant light beams is
5 emitted from the substrate, an optical path is changed by the
mirror and the radiant light beam is adapted to be incident on
the monitor photodetector.

7. (Currently Amended) A monitor photodetector-equipped
optical modulator according to claim 1, ~~characterized by~~ further
comprising a capillary which is fixed near the substrate facet,
wherein, after at least one of the two radiant light beams is
5 emitted through the capillary, the radiant light beam is adapted
to be incident on the monitor photodetector.

8. (Currently Amended) A monitor photodetector-equipped
optical modulator according to claim 1, ~~characterized by~~ further
comprising an optical power attenuation mechanism which is
provided between the multiplexing point and the substrate facet
5 on ~~the~~ an output optical waveguide side of the substrate such
that one of the two radiant light beams radiated from the
multiplexing point of the multiplexing optical waveguide is
attenuated while the radiant light beam propagates toward the
substrate facet.

9. (Currently Amended) A monitor photodetector-equipped
optical modulator according to claim 1, ~~characterized in that~~

wherein the monitor photodetector ~~is formed by~~ comprises a photodiode.

10. (Currently Amended) A monitor photodetector-equipped optical modulator according to claim 1, ~~characterized in that~~
wherein a facet to ~~the~~ a substrate facet side of the capillary is substantially parallel to a facet to ~~the~~ a side in which one of
5 the two radiant light beams is emitted in the capillary.

11. (Currently Amended) A monitor photodetector-equipped optical modulator according to claim ~~1~~ 10, ~~characterized in that~~
wherein a region, where the facets are not parallel to each other, exists between the facet to the substrate facet side of
5 the capillary and at least a part of the facet ~~on~~ to the side in which one of the two radiant light beams is emitted ~~, of~~ in the capillary.